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INDUSTRIAL ACCIDENTS, EMPLOYER'S LIABILITY,  
AND WORKMEN'S COMPENSATION IN MINNESOTA.

By DON D. LESCOHIER, *Expert Minnesota Bureau of Labor.*

The American people have come to realize that work accidents constitute one of the grave problems of the nation's life, and within the last three years twelve states and the federal government have appointed commissions to consider the compensation of injured workmen.\* A large number of important publications on the subject have appeared,† and the sentiment both for adequate compensation and for efficient accident prevention is rapidly gaining an irresistible momentum. Minnesota took a unique place in the movement by passing a law that requires all employers except the railroads (which report to the Railroad and Warehouse Commission) to report their industrial accidents to the Bureau of Labor.‡ A similar law required all casualty insurance companies to report their industrial experience for 1907, 1908, and 1909 to the Minnesota Compensation Commission, but no use has been made of the reports.§

## INDUSTRIAL ACCIDENTS IN MINNESOTA.

During the year ending July 31, 1910, 10,463 industrial accidents, 343 of which were fatal, were reported from the industries of Minnesota (including the railroads). Of the accidents 16 caused total disability and over 600 were serious.¶ The nature of the injuries in 2,000 non-fatal railroad accidents could not be ascertained, but New Jersey statistics suggest that probably one third of them were serious. This would increase the total number of serious accidents to about 1,300.

\* Minnesota, Wisconsin, New York, Illinois, Connecticut, Maine, Massachusetts, New Jersey, Michigan, Missouri, Ohio, Washington. New York, Washington, Wisconsin, New Jersey, Ohio, and Kansas have already passed compensation laws, while Minnesota, Illinois, and Massachusetts have bills before their legislatures. The New York compulsory law has been declared unconstitutional, but an optional law passed at the same time is still operative.

† An article in "The Survey" of March 18, 1911, reviews these publications, while a digest of the report of seven commissions by P. Tecumseh Sherman is given in the same paper for March 4, 1911. A review of the Minnesota Bureau of Labor report upon which this paper is based may be found in "The Survey" of March 25, 1911, under the caption "Minnesota Leads."

‡ Chapter 235 Laws 1909.

§ Chapter 234 Laws 1909.

¶ "Industrial Accidents and Employers' Liability in Minnesota," Don D. Lescoghier. Part II, Twelfth Biennial Report of the Minnesota Bureau of Labor contains the accident findings of the Bureau. Part I of the Biennial Report, "The Wage Earners of Minnesota," by Frank Hoffman, and Part III, Chapter 1, "Wages in Minnesota," by Don D. Lescoghier, contain supplementary material.

Forty-five per cent. of the killed and injured were married men, 83.78 per cent. were between 17 and 40 years of age, and 60.38 per cent. were either Americans or North Europeans. Fifty-one of the injured, including one total disability and one fatality, were females.

The mines had the largest number of accidents though the railroads had the largest number of fatalities. The wood industries, general contracting, metal manufactures, public utilities, agriculture and flour milling were the other more dangerous industries, though a surprising number of fatalities were reported from industries commonly supposed not to be dangerous, such as mercantile and printing establishments. The accompanying table classifies the injuries in the several industries.

INDUSTRIAL ACCIDENTS IN MINNESOTA—AUGUST 1, 1909, TO JULY 31, 1910—BY INDUSTRIES.

Industry.	Fatal.	NATURE OF INJURY.													Total.
		Permanent Disablement.			Fractures.	Crushings.	Lacerations.	Sprains and Dislocations.	Burns and Scalds.	Injuries to Eyes.	Internal.	Frozen.	Un-Classified.		
		Total.	Serious.	Lesser.											
Railroad shops.....	4	..	1	11	17	234	204	50	40	197	5	..	1	764	
Other railroad accidents.	90	..	..	..	..	..	..	..	..	..	..	..	1,973	2,063	
Lumber industries.....	55	1	23	53	82	382	430	72	16	51	6	..	..	1,171	
Mining industries.....	83	10	23	17	150	2,341	689	394	124	436	22	5	213	4,507	
Contracting.....	37	2	6	12	6	266	217	47	19	32	14	..	1	719	
Public utilities.....	19	1	1	3	24	56	41	23	21	8	3	..	2	207	
Agriculture.....	12	1	6	5	8	10	7	..	..	4	1	..	..	54	
Flour manufacturing.....	9	..	3	6	18	40	46	21	5	2	..	..	..	152	
Foundries and machine shops.....	7	..	7	27	42	125	96	..	26	4	2	..	..	389	
General manufacturing..	(a)12	..	7	19	20	99	111	14	16	15	3	..	..	316	
Hotels and mercantile...	4	1	..	..	9	17	16	3	1	..	..	..	..	52	
Livery and teaming.....	7	..	..	..	4	6	..	..	..	..	..	..	..	17	
General labor.....	(b)4	..	..	3	13	14	9	3	3	..	4	..	..	52	
Total.....	343	16	77	157	453	3,590	1,866	635	271	794	60	5	2,190	10,463	

(a) Meat packing, 1; shoe manufacturing, 1; printing 2; boxes and envelopes, 1; paper manufacturing 3; chemical manufacturing, 4.

(b) An elevator accident to a newsboy; a janitor who fell from a window; a street sweeper struck by an automobile; a watchman burned in a building.

The table shows that the industries of the state vary markedly in their accident hazards, and when we compute the number of accidents for each 1,000 men employed, the fact becomes still more evident. In the mines 4.05 men were killed for each 1,000 employed; in lumbering and woodworking, 2.28;

on the railroads and in the public utilities, 1.9; in general contracting and flour milling, 1.6; in metal manufactures, 0.44; and in general manufactures, 0.20. Similarly, of each 1,000 employed, 211 men were injured in the mines, 57 on the railroads, 47 in the wood industries, 30 in contracting, 26 in flour milling, 24 in metal manufactures, 19 in the public utilities, and 5 in general manufactures.

Equal diversity obtains in the relative proportions of the non-fatal accidents in the several industries that are serious. Five times as many men are non-fatally injured in the mines, in proportion to the number employed, as in lumbering and woodworking, but only one and a half times as many are seriously injured. Twice as many are non-fatally injured in the wood manufactures as in the metal manufactures, but only one and a half times as many seriously injured. Even more striking contrasts appear when we compare the relatively dangerous industries—such as woodworking—with the less dangerous industries, such as textile manufactures or shoe making.

But such comparisons reveal only the average risk of injury in the several industries. They are important in a study of the costs to the several industries of a compensation system, but served only as a starting point in a study of accidents that aims at prevention. For this purpose we must go deeper, and classify accident risks by occupations, machines and processes, we must discover the elements of hazard in each occupation and task, and separate the preventable and non-preventable causes of injury.

To illustrate. A study of occupational risks in the Minnesota mines revealed the fact that accidents were 24 times as numerous, in proportion to the number of men employed, among steam shovel pitmen as among miscellaneous laborers, 8 times as numerous among pitmen as among steam-shovel and stationary engineers, and 4 times as numerous as among trammers and locomotive engineers. On the same basis, 4 pitmen are killed or injured for each 3 brakemen, and 2 for every miner, blaster, or timberman, though these occupations furnish twice as large a proportion of the injured as of the total number of workmen employed. In the railroad

industry of the state, 34 per cent. of the fatal accidents during 1909, and 41 per cent. of the non-fatal accidents, occurred to trainmen, though these constituted but 13.7 per cent. of the total number of employees. The maintenance of way department, with 34 per cent. of the employees, had but 7 per cent. of the fatal accidents and 10 per cent. of the non-fatal; and the railroad shops, with 14 per cent. of the employees, 3.5 per cent. of the fatal accidents and 19 per cent. of the non-fatal. The fatal accident risks among trainmen in Minnesota in 1909 were therefore 15 times as great as among trackmen and 12 times as great as among shopmen; and the non-fatal risks respectively 10 times as great and 3 times as great.

Starting with this knowledge of occupational risks in any given industry we can analyze the processes of each occupation and discover its peculiar dangers, their causes, and the possibilities of their prevention. The pitmen in the Minnesota mines, for instance, were found to be especially exposed to falls "of ground or ore" by which 11 have been killed and 12 seriously injured during the past five years; to being run over by trains, by which 11 were killed and 3 seriously injured in the same period; and to being caught in steam shovel machinery while making repairs, in which manner 3 were killed and 5 seriously injured. The other 8 fatalities and 10 serious injuries during the five years were due to more or less occasional causes, though all of them resulted from dangers typical of the work—such as rocks thrown by blasts in other parts of the open pit (which is a great excavation in the surface of the ground with steam shovels working at various points cutting away the perpendicular banks and blasters loosening the ground with great blasts of black powder), rocks falling from shovel dippers, the breaking of shovel boom chains, or the bursting of a steam pipe on the shovel.

A further analysis of a single group of these accidents to pitmen may be utilized to show how careful investigations illuminate the problem of prevention.\* The pitman is a part of the steam shovel crew. He works on the ground, laying the track on which the steam shovel is moved up closer to the bank as it cuts the bank away, cleaning the dirt from the

\* "The Survey" of July 1, 1911, contains an article on the prevention of mine accidents by the author of this article, and succeeding numbers of "The Survey" articles on accident prevention in the wood-working, flour-milling, and agricultural industries.

track on which the train carrying away the dirt or ore runs; and fastening chains about large chunks which it occasionally is necessary to move by means of the steam shovel. It is while he is either cleaning the tracks or walking out of the mine that he is killed or injured (rarely injured) by the trains. The following cases are typical of the track cleaning accidents—On November 11, 1909, a track cleaner stepped upon the tracks and began cleaning away the loose dirt after a loaded stripping train had started for the dump. The train got stalled and backed down for a run. The shovel was running at the time and the deceased did not hear the approaching train. He was run down and killed.—On February 25, 1910, exactly the same thing happened. “Kriss was attending to his work,” says the Mine Inspector, “and although the engineer blew the whistle and the headlight was burning, he neither heard nor saw the train approaching.” Had the trains stood still for a single instant while a brakeman ran to the shovel and personally warned the pitman from the tracks, the accidents would have been avoided.

The “walking on the track” accidents occur because the tracks are the only paths out of the mines. The ground in the pits is extremely rough, being covered with boulders, jagged chunks of clay, mud puddles, and other things that make walking difficult. Workmen can hardly be expected, especially at the termination of their work, to clamber over such obstacles for several hundred yards to get out of the pit when there is a railroad track to walk on. These accidents, which occur not only to pitmen but to all classes of pit workers and took 23 lives in 5 years, could have been avoided by a path through the pit, at sufficient distance from the tracks to prevent chunks falling from the cars upon the heads of passersby.

The study of *how* accidents happen is closely related to that of *why* accidents happen. But the two questions have their origin in totally different attitudes toward the accident problem. The question, How do accidents happen? is born of the desire to prevent accidents; but the question, Why do accidents happen? is born of the legal struggle over the employer's liability for accident compensation. The first concerns itself with the causes of accidents with the purpose to discover which are eradicable and which are not; the second with the causes

of accidents with the idea of discovering whose fault was involved and who should bear the financial loss incident to the casualty.

An interesting tabulation of answers to the question, "Why do accidents happen?" was made possible by a clause in the Minnesota accident law which required the employers when reporting accidents to express their opinion upon whose fault, if anyone's, caused the accident.

MINNESOTA EMPLOYERS' OPINIONS ON THE PERSONAL CAUSES OF ACCIDENTS.

Cause of Accidents.	Number of cases.	Per cent. of all cases.
Hazards of industry.....	2,488	61.00
Contributory negligence.....	845	20.70
Hazard and contributory negligence.....	429	10.50
Negligence of injured.....	149	3.60
Negligence of fellow-workmen.....	127	3.10
Fellow servant and injured.....	42	1.00
Employer.....	4	.10
Totals.....	4,084	100.00

Thirty-nine per cent. of the accidents accounted for are declared by the employers to be wholly or partially due to the faults of workmen, either the persons injured or their fellows, and 61 per cent. to the hazards of the industry. Only 8 per cent. are ascribed solely to the fault of the workmen, but in 31 per cent. of the cases they are held to have contributed to the causes of the accidents. The most striking feature of the table is the statement by the employers that fully 60 per cent. of all the accidents that occur are due to dangers inherent in industry, a conclusion almost identical with that reached by the Bureau of Labor in a previous publication.\* The Bureau of Labor would not agree, however, that these 60 per cent. are all unavoidable hazards of industry. On the contrary, somewhere from 10 to 40 per cent. of these accidents are as certainly preventable as the majority of the accidents due to personal negligence. More than 50 per cent. of the accidents that occur are certainly preventable.†

\* "Industrial Accidents, Employers' Liability, and Workmen's Compensation," by Don D. Lescohier, Bulletin 1, October, 1909, pp. 26, 36.

† The Minnesota Bureau of Labor is at present making a careful analytical study of all accidents reported since 1906 with the purpose of searching out all types of preventable accidents and the means of their prevention. The first of a series of safety bulletins to be issued by the department is already in press.

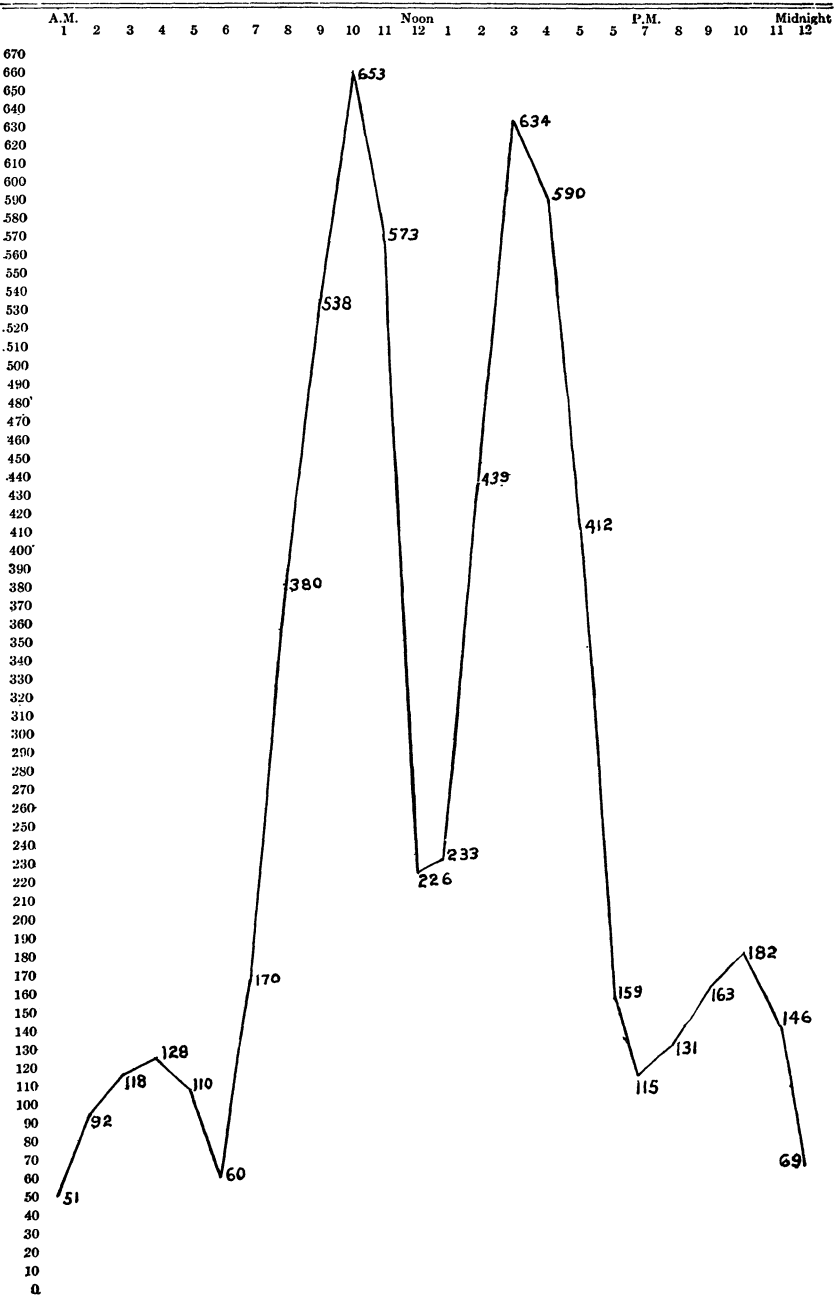
The accidents charged to the "hazards of industry" indicate that there are at least three general types of industrial hazards: first, those that operate with more or less regularity in particular industries, such as falls of ground in the mines, wrecks on the railroads, or falling trees in the lumber woods; second, those that occur frequently although not regularly, in a number of industries, such as the accidents on belts and shaftings which produce each year a number of fatal and serious injuries, but happen only occasionally in any particular plant or locality; and third, those that are exceptional and occasional, such as the bursting of a vegetable cooker in a restaurant, which permanently crippled a Minnesota domestic servant in 1909, or the bursting of a saw-mill boiler that took 5 lives in one catastrophe in 1908.

The principal personal causes of accidents found responsible in whole or in part for the 38 per cent. of the accidents attributed to the workmen, were youth, ignorance of the English language, incompetence, carelessness ranging all the way from a momentary inattention or forgetfulness to foolhardy recklessness, personal shortcomings like deafness or excitability, absorption in the work in hand which made the workman oblivious of approaching danger, fatigue, and nerve strain.

Wherever, as in the woodworking factories, a large contingent of workers less than 25 years of age was employed a relatively large number of accidents due to carelessness, recklessness, or thoughtlessness occurred; wherever, as in the mines, there was a large contingent of unskilled foreigners ignorant of the language and very commonly of the danger to which they were exposed a large number of accidents were found due to what was apparently inattention, carelessness, or stupidity on the part of the workmen, but really ignorance of the language and lack of experience and competence in the work. The accompanying chart, with its demonstration that the largest number of accidents occurs at 10 a. m., 3 p. m., 10 p. m., and 4 a. m., and the next largest numbers at 11 a. m., 4 p. m., 11 p. m., and 5 a. m.,—would seem to indicate that the absorption in the work and the high speed that accompany the middle and latter part of the working shift, together with the wearying of nerve and muscle by 3 or 4



CHART I—HOURS AT WHICH ACCIDENTS OCCURRED. ALL INDUSTRIES. 6370 AC-  
CIDENTS



hours of toil, are underlying causes of many of the lapses of care or attention that result in accidents. A tabulation of the hours of injury by individual industries yielded the same results as this chart shows for all industries.

#### EMPLOYERS' LIABILITY.

In the course of the investigation the Bureau of Labor investigated not only the legal principles of employers' liability, but the compensations obtained under employers' liability by 300 injured Minnesota workmen or their families. Fifty-four fatal accidents, 6 total permanent disablements, 50 permanent partial disablements, 50 serious temporary injuries (such as broken arms or legs), and 135 minor casualties were covered by the investigation. The representative character of the cases taken may be judged from the fact that the fatal accidents considered occurred in 41 different occupations, 28 industries, and nearly every section of the State.

In 27 (50 per cent.) of the fatal cases the dependents received no compensation at all; in 13 cases (24.2 per cent.) \$1,000 or less; in 8 cases (14.8 per cent.) from \$1,000 to \$2,000; in 2 cases (3.7 per cent.) \$2,500; and one each, \$4,000; \$4,256.94; \$5,000 and \$6,352. In the last case the deceased was a telephone lineman and his dependents recovered both from his employer and a lighting company whose wires killed him. The average net compensations in the 54 cases (*i. e.* the compensations over and above funeral, legal, and medical expenses incurred) was \$536. Adding three years' wages to the expenses incurred on account of the accident, it was found that the average fell short by \$1,445 of the average of a reasonable compensation for the families of the deceased.

The compensations for total permanent disability were—in three cases, nothing; in one \$150; in another, \$175, and in another, \$4,500. The man who received \$175 paid his lawyer \$75. The \$4,500 compensation was obtained by a Polish immigrant girl unable to speak English. Her hospital expenses, \$1,700, and her legal expenses, \$3,000, will consume the settlement before she is discharged from the hospital and leave her penniless.

Fifty cases of permanent/partial disability were investi-

\* Cf. statistics for Germany on same subject, which substantially agree, page 1134, *Twenty-fourth Annual Report of the United States Commissioner of Labor, 1909.*

gated. Ten lost in whole or in part the use of an eye; 6, a hand; 6, an arm; 9, a foot; 5, a leg; and 9, fingers. Five suffered miscellaneous injuries. Fourteen of the 50 received no compensation from the industry at all, and six others compensations smaller than their losses. Forty-four per cent. of the cases of permanent partial disability were found, therefore, to be uncompensated. In the cases where compensation was received the amounts varied greatly. For instance, the compensations for the loss of an eye ranged from \$290 to \$2,700; for the loss of a hand, from \$405 to \$4,200; and for the loss of a foot from \$50 to \$3,000.

The same things are true of the cases of serious, temporary injuries—such as broken arms or legs—50 of which were investigated. Six did not receive anything and four others only their medical expenses. These ten sustained losses of \$2,009.27, or over \$200 each. In 15 cases the injured received some compensation, but less than their medical expenses and wage losses—their net losses averaging \$65.50. Seven workmen were paid full medical expenses and wages, and 18 were given compensation in excess of their expenses and wages.

Twenty-five (50 per cent.) of the workmen in the group sustained financial losses, seven (14 per cent.) were not financially affected, and 18 (36 per cent.) received an average compensation of \$443 in excess of their losses. The average compensation above wages and medical expenses in the 50 cases approximated \$100.

The workmen bore the whole of their financial loss in 51 out of 135 minor cases and 60 per cent. of the loss in 40 cases. In 33 cases their compensations equalled their losses, and in 11, exceeded them. Sixty-seven per cent. of the men suffering lesser injuries sustained financial losses, 24 per cent. came out even and 9 per cent. gained.

#### WORKMEN'S COMPENSATION.

A widespread realization of the injustices of employers' liability has led to the appointment of commissions in 12 states, and by the Federal Government, to frame compensation laws either changing the basis of recovery in cases of industrial personal injuries from negligence, or fault, to the risk of the industry, or at least to abolish those defences by

which the employers now escape liability. Seven of these commissions have already reported bills providing that workmen shall collect definite compensation proportioned to their injuries and without proving their employers' negligence and three states have passed compensation laws.\*

A significant feature in these bills is the fact that they make compensation depend upon and vary with wages. The man earning \$20 a week receives twice as much compensation for injury as the man earning \$10, though maximum and minimum limits of compensation prevent the wage rate from carrying the compensation above or below certain totals. This characteristic of the laws is a distinct departure from the practice under employers' liability, where the amount of compensation is determined by the caprice of a jury, except as limited by statute in certain states. Wage losses may be considered by the juries in arriving at the damages to be awarded, but wage losses do not definitely determine them.

The Minnesota compensation bill, for instance, provides that for fatal injury 50 per cent. of the deceased's wages shall be paid for 5 years to his dependents, not to exceed in the total \$3,000; for total permanent disability, 70 per cent. of the injured's wages but not more than \$7,000; and for the loss of one limb or eye, 57.5 per cent. of wages but not more than \$5,700. Lesser injuries of more than two weeks' duration are to be compensated by 50 per cent. of wages during disability.

The dependents of 48 men killed recently in the several industries of Minnesota would have received under this code: In 5 cases (10.4 per cent. of the 48) less than \$1,000; in 13 cases (27 per cent.) from \$1,000 to \$1,499; in 19 cases (39.6 per cent.) \$1,500 to \$1,999; in 3 (6.25 per cent.) \$2,000 to \$2,499; in 3 others, \$2,500 to \$2,999; and in 5 (10.4 per cent.) \$3,000. More than 37 per cent. of the dependents, therefore, would receive less than \$1,500 and 77 per cent. less than \$2,000. It is evident that a \$3,000 maximum based on wages does not mean a \$3,000 compensation in very many cases. The benefit accruing to the workmen from a compensation law would therefore consist in every family being assured some compensation rather than in the raising of the compensations to a high figure.

\* See first footnote.

The computation that follows, based upon the Bureau of Labor's study of wages in 1910, shows what would be received by the wage earners of Minnesota under the compensation code, with a comparison of the amounts that would be received at the same rates of pay in six other states under the bills proposed by their commissions.

COMPENSATION FOR DEATH UNDER PROPOSED COMPENSATION LAWS.

Wages per week.	Per cent. of wage earners.	Compensations under Proposed Compensation Laws.						
		Minn.	New York.	Wisconsin,	Ohio.	Illinois.	Mass.	Kansas.
\$6.00	1.5	\$ 780	\$ 936	\$1,500	\$1,500	\$1,500	\$1,200	\$1,200
7.50	8.0	975	1,170	1,560	1,500	1,500	1,200	1,200
11.00	27.5	1,430	1,716	2,288	1,980	1,716	1,650	1,716
13.50	35.0	1,755	2,106	2,808	2,430	2,106	2,025	2,109
16.00	13.0	2,080	2,496	3,000	2,880	2,496	2,400	2,496
20.00	8.0	2,600	3,000	3,000	3,400	3,000	3,000	3,120
24.00 and over	7.0	3,000	3,000	3,000	3,400	3,000	3,000	3,600

COMPENSATION FOR TOTAL DISABILITY UNDER PROPOSED COMPENSATION LAWS.

Wages per week.	Per cent. of wage earners.	Minn.	New York.	Wisconsin,	Ohio,*	Illinois.	Mass.	Kansas,†
\$6.00	1.5	\$1,094	\$1,242	\$1,496	.....	\$1,300 (a)	\$1,192	.....
7.50	8.0	1,274	1,553	1,552	.....	1,300 (a)	1,192	.....
11.00	27.5	1,989	2,277	2,288	.....	1,430 (a)	1,680	.....
13.50	35.0	2,438	2,794	2,794	.....	1,755 (a)	2,012	.....
16.00	13.0	2,890	3,312	3,000	.....	2,080 (a)	2,396	.....
20.00	8.0	3,612	4,140	3,000	.....	2,600 (a)	2,980	.....
24.00	7.0	4,404	4,140	3,000	.....	2,600 (a)	2,980	.....
38.50	7.0	6,933	4,140	3,000	.....	2,600 (a)	2,980	.....

\* 60 per cent. of wages for life.  
† 50 per cent. of wages during disability.

A study of the compensations that would be obtained under the code by the workers in a number of dangerous industries and occupations is still more instructive. It shows how much the average rates of compensation would vary in the several industries with wage variations, For instance, though 37 per cent. of the wage earners of Minnesota would receive less than \$1,500 for fatal injury and 37 per cent. less than \$2,000 for total disability, none of the railroad trainmen would receive so little. Only 7 per cent. of all the workers of the state would be eligible for the maximum death benefit, but 30 per cent. of the railroad trainmen. Twenty-seven per cent. of all the workers would get over \$2,000, and 93 per cent. of the trainmen. The average compensation for death

in all industries would be \$1,755, but only 6.5 per cent. of the trainmen's families would be compelled to accept this amount.

The compensations of railroad trainmen under the code are given in detail in the table below, which is based upon the wage statistics on page 356 of the Minnesota Bureau of Labor's Twelfth Biennial Report (1909-10).

COMPENSATION OF RAILROAD TRAINMEN UNDER MINNESOTA COMPENSATION CODE.

Weekly wages.	Per cent. of trainmen.	Compensation for—		
		Death.	Total permanent disability.	Partial permanent disability.
\$13.50	6.5	\$1,755.00	\$2,438.00	\$1,950.00
16.50	24.4	2,145.00	2,977.00	2,440.00
18.90	8.7	2,457.00	3,413.00	2,790.00
20.40	10.4	2,652.00	3,719.00	3,160.00
22.50	19.3	2,925.00	4,055.00	3,320.00
25.50	8.8	3,000.00	4,600.00	3,760.00
28.50	5.8	3,000.00	5,143.00	4,210.00
31.50	4.7	3,000.00	5,677.00	4,650.00
34.50	8.2	3,000.00	6,200.00	5,100.00
37.50	1.9	3,000.00	6,755.00	5,540.00
40.50	1.3	3,000.00	6,933.00	5,700.00

It is evident, therefore, that while railroad trainmen are engaged in a dangerous industry they are in an industry which because of its high wages gets the highest degree of benefit rendered by a compensation system based on wages. The situation is much different in the other dangerous industries of Minnesota, such as mining and lumbering, or in the highly hazardous work of telephone and electric light linemen. For instance consider the following facts concerning the more dangerous mine occupations.

COMPENSATION OF MINE WORKERS UNDER PROPOSED CODE.

Occupation.	Average weekly wages.	Per cent. of all mine workers.	Compensation for—	
			Death.	Total disability.
Steam shovel pitmen-pocket men..	\$13.50	2.00	\$1,755.00	\$2,438.00
Brakemen .....	14.40	3.12	1,882.00	2,600.00
Miners, blasters, drillers, timbermen.....	15.00	23.25	1,950.00	2,749.00
Dumpmen .....	12.00	2.45	1,260.00	2,167.00
Ship tenders .....	14.00	.23	1,820.00	2,538.00
Motormen, trainmen .....	13.80	3.20	1,795.00	2,502.00
Shift bosses .....	18.00	.43	2,340.00	3,250.00

Mine Workers of more than ordinary skill or those in the higher paid occupations, such as mine captains, steam shovel engineers, or diamond drill runners, who are both few in number and seldom seriously injured, would occasionally get the full death benefit, or a large disability benefit, but on the average the compensations for fatal injury to mine workers would be below \$2,000, and the disability benefits in proportion.

The facts for the lumber industry are similar. The following table is based on the wages of the industry as a whole, rather than of specific occupations. It shows that 81 per cent. of the lumber and wood workers would receive less than \$1,755 for fatal injury, and 57 per cent. less than \$2,000 for total disability.

COMPENSATION OF WORKERS IN THE LUMBER INDUSTRY, UNDER PROPOSED CODE.

Average wages.	Per cent. of workers.	Compensation for—	
		Death.	Total disability.
\$ 7.00	6.50	\$ 910.00	\$1,267.00
9.00	14.00	1,170.00	1,628.00
11.00	37.00	1,430.00	1,989.00
13.50	24.00	1,755.00	2,438.00
16.00	5.50	2,080.00	2,890.00
18.00	8.00	2,340.00	3,251.00
20.00	5.00	3,000.00	3,612.00

A similar computation for linemen showed that 53 per cent. would get less than \$1,365 for fatal injury, 69 per cent. less than \$1,755 and 96 per cent. less than \$2,150.

An even more striking contrast is that between the compensations that would be received by the families of railroad trainmen and of railroad section men. We have not detailed statistics in regard to the number of section men killed and injured in Minnesota, though we know that they are numerous, but a study of New Jersey train accidents showed that 25 per cent. of the accidents to section men caused death (a total of 213 fatal accidents occurring in 20 years), and that one in every eight of the non-fatal injuries was a serious injury. The wages of these section men average about \$1.40 a day in Minnesota which would entitle them, under the compensation code, to something like \$1,050 for fatal injury, \$1,450 for total disability and \$1,200 for permanent partial disability.